

REMARKS

This application has been carefully reviewed in light of the Office Action dated April 15, 2009. Claims 1 to 20 are in the application, with Claims 11 to 15 and 17 to 20 being withdrawn from consideration. Of the claims presented for examination, Claims 1 and 16 are in independent form. Claims 1, 8 and 16 have been amended. Reconsideration and further examination are respectfully requested.

In the Office Action, Claim 8 was objected to under 37 CFR 1.75(c) for allegedly being in improper form. The amendments to Claim 8 are seen to attend to this rejection. Reconsideration and withdrawal of this rejection are respectfully requested.

Claims 1, 2, 4 to 7 and 16 were rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 6,084,604 (Moriyama) in view of U.S. Patent No. 5,798,776 (Uchiyama); Claims 3 and 8 were rejected under 35 U.S.C. § 103(a) over Moriyama in view of Uchiyama and further in view of U.S. Patent No. 6,328,403 (Iwasaki); and Claims 9 and 10 were rejected under 35 U.S.C. § 103(a) over Moriyama in view of Uchiyama and further in view of U.S. Patent No. 5,828,396 (Seto). Reconsideration and withdrawal are respectfully requested.

Independent Claim 1 as amended generally concerns a recording apparatus that uses an ink-ejecting recording head and performs recording by ejecting black ink and at least one color ink onto a recording medium from the recording head. The recording apparatus includes extraction means for extracting, on the basis of recording data, both black adjacent pixels composed of pixels whose adjacent pixels are recorded with black ink, and color adjacent pixels that include pixels whose adjacent pixels are recorded with color ink, from among the pixels constituting a black image. The recording apparatus

further includes data creating means for creating data that corresponds to color ink so that recording with black ink and with color ink applied (or added) according to a given ratio is done, on the black adjacent pixels or the color adjacent pixels extracted by the extraction means. In addition, the recording apparatus includes recording control means for performing recording with the recording head on the basis of the recording data and the data created by the data creating means. The black image is recorded by superposing an image composed of pixels formed by black ink and an image based on the data corresponding to color ink created by the data creating means. The data creating means creates data that corresponds to color ink by using different ratios for recording pixels with color ink onto the black adjacent pixels than for recording pixels with color ink onto the color adjacent pixels.

Thus, among its many features, Claim 1 provides for using different ratios for recording pixels with color ink onto black adjacent pixels than for recording pixels with color ink onto color adjacent pixels. The applied references of Moriyama, Uchiyama, Iwasaki and Seto are not seen to disclose or suggest at least this feature.

As understood by Applicants, Moriyama discloses a method which discriminates whether or not data for a color image is present at a position adjacent to data for a black image. A first portion, adjacent to the color image, of the black image, is formed of black dots made by mixing a plurality of color inks. A second black image portion other than the first black image portion adjacent to the color image is formed, by means of pixels of black ink and pixels of at least two of the plurality of color inks, when the color image is present at the position adjacent to the black image. See Moriyama, column 29, lines 48 to 57.

As such, Moriyama is seen to disclose that color ink is added to all pixels in the first portion and the second portion. However, Moriyama is not seen to disclose or suggest using different ratios, much less that different ratios are used for recording pixels with color ink onto black adjacent pixels than for recording pixels with color ink onto color adjacent pixels.

Uchiyama is not seen to compensate for the deficiencies of Moriyama. In this regard, Uchiyama is seen to disclose a method which, when a black image is adjacent to a color image, prints the color ink as an undercoat on positions of some black dots in the whole region or a partial region of the black image. See Uchiyama, column 2, lines 15 to 20.

However, Uchiyama is not seen to disclose or suggest the use of different ratios for recording pixels. Accordingly, Uchiyama is not seen to disclose or suggest using different ratios for recording pixels with color ink onto black adjacent pixels than for recording pixels with color ink onto color adjacent pixels.

In addition, Iwasaki and Seto have been reviewed and are not seen to compensate for the deficiencies of Moriyama and Uchiyama. In particular, Iwasaki and Seto are not seen to disclose or suggest using different ratios for recording pixels with color ink onto black adjacent pixels than for recording pixels with color ink onto color adjacent pixels.

Claim 1 is therefore believed to be allowable over the applied references.

In addition, independent Claim 16 is a method claim which generally corresponds to apparatus Claim 1. Accordingly, Claim 16 is believed to be allowable for the same reasons.

The other claims in the application are each dependent from the independent claims and are believed to be allowable over the applied references for at least the same reasons. Because each dependent claim is deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

No other matters being raised, it is believed that the entire application is fully in condition for allowance, and such action is courteously solicited.

No fees are believed due; however, should it be determined that additional fees are required, the Director is hereby authorized to charge such fees to Deposit Account 06-1205.

Applicants' undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

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